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Testimony to Senate Finance- February 15, 2018 Status of Net Metering

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About VEC

As a member-owned, not-for-profit cooperative, VEC's primary interest is to provide our members with safe, cost-effective, reliable, and environmentally responsible electric service. Our service territory is rural and relatively low-income. Thirty-nine percent of VEC's residential members are on fixed incomes and VEC serves eight of the top ten Vermont towns, and three of the top five counties, with the highest poverty levels. We work hard to meet the needs of lower-income Vermonters and support our rural businesses by keeping electric rates as low as possible and by not shifting costs to those who can least afford them. We have not had a rate increase since January 2014 and support policies and programs that reduce rate pressures.

Net metering has continued at a rapid pace under NM 2.0.

In 2017, the total number of applications and their total capacity exceeded the totals during the previous three years combined. For part of that time, VEC's net metering program was closed because we had reached the statutory 15 percent cap. However, even taking that into consideration, the pace of applications in 2017 was in excess of anything we have previously seen.

2017 Net Metering Data

2017	# of	% of	Total Capacity	% of	Av	% of 2017 Peak
	Applications	Applications	(kW)	Capacity	kW	(85.4 MW)
15kW or less	373	95%	2,572	34%	7	
>15kW to 150kW	8	2%	296	4%	37	
>150kW to 500 kW	10	3%	4,740	62%	474	
Total	391		7,607		19	8.91%

All Net Metering Data

	Accounts	kW	Avg kW	% of 2017 Peak
Original projects (pre-4/15/14)	352	3,325	9	3.89 %
2014 - 2016 (until VEC cap reached 11/15)	348	6,425	18	7.52 %
2017	391	7,607	19	8.91 %
Total	1,091	17,357	15	20.32 %

Applications for the large net metering projects make up the majority of the application capacity. In 2017, projects larger than 150 kW were three percent of the total number of applications, but over 60 percent of the total capacity. Since the start of 2017, we have received double the number of applications for 500 kW projects (10) than in all previous years combined (5).

We must take and must pay above market rates for the energy generated from these projects. Our utility has no choice about whether to purchase energy from these large projects and no ability to negotiate the price we do pay. Under NM 2.0 the rate we are required to pay is approximately 42 percent more than for the local renewable energy we purchase for our community solar projects through competitive power purchase agreements (PPAs). (Under NM 1.0 the cost difference was approximately 58 percent more).

Comparative Cost for 500-kW Projects Developed Under Different Programs

		NM 1.0 (no RECs)	NM 2.0 (w/RECs)	PPA	Standard Offer
First 10 yrs	Price/kWh	\$0.1900	\$0.1692	\$0.1163*	\$0.1167**
	Annual Cost	\$133,000	\$118,433	\$81,410	\$81,690
	Annual Subsidy	\$51,590	\$36,743		
	10-year subsidy	\$515,900	\$367,430		
Last 15 yrs	Price/kWh	\$0.14919	\$0.14919	\$0.1163*	\$0.1167**
	Annual Cost	\$104,433	\$104,433	\$81,410	\$81,690
	Annual subsidy	\$23,023	\$23,023		
	15-year subsidy	\$345,345	\$345,345		
	Lifetime Subsidy	\$861,245	\$712,775		

^{*}This price is an average of three VEC solar PPAs.

Net Metering Cost Shift

The large NM projects provide direct financial benefit to few members and shift the costs to all the other co-op members. The five 500-kW projects currently online that were developed under NM 1.0 have only ten members subscribed to them, with 45 accounts receiving credits. These five projects will cost the VEC membership an additional \$4.31 million in subsidy over a 25-year period, while the co-op receives no renewable energy certificates (RECs) from them and therefore must consider them "null electricity". Under NM 2.0, the membership as a whole will continue to pay a generous subsidy for these large projects, albeit with the improvement that they are now generating power the co-op can claim as renewable.

Constraints in Sheffield Highgate Export Interface (SHEI)

The SHEI is a transmission-constrained area where existing renewable resources are being curtailed when electric generation in the SHEI exceeds the demand for electricity (load). VEC faces resulting cost increases due to the curtailment of the output of existing projects in the SHEI, such as Kingdom Community Wind, and lower revenues for resources in the region (imports from Hydro-Quebec through the Highgate interconnection, the Coventry landfill

^{**}This price is an average of the smaller solar projects (= or < 1.2 MW) in the 2017 award group, not including the more expensive parking lot canopy project.

generating plant, Kingdom Community Wind, Sheffield Wind, etc.). Net metering in SHEI-affected areas could exacerbate these constraints and the resulting curtailment, contributing to additional upward rate pressure. In recent comments to the Public Utility Commission, VEC has urged the Commission to prevent the siting of large NM projects in the SHEI until a solution can be found. VEC expects these adverse effects to continue into the foreseeable future and is working with VELCO and other affected utilities to assess possible solutions.

VEC Community Solar



VEC offers cost-effective and economically sustainable renewable energy to <u>all</u> VEC members though VEC's Co-op Community Solar Program. Through this program VEC is able to purchase renewable energy at market rates and brings the benefit to all VEC members. VEC members have the option of sponsoring panels and receiving fixed monthly credits on their electric bill for 10 or 20 years. Members have access to financing options and on-bill payment and can opt out of the program any time and for any reason. Members can choose from a wide range of participation levels, from just a small amount up to enough to cover their annual electric charges. They can participate even if they rent or do not have a suitable location to site solar panels. VEC currently has three Co-op Community Solar projects in operation with a total capacity of over seven megawatts. The projects are in Alburgh, Grand Isle, and Hinesburg, and they are sited and sized to optimize grid efficiency.



In Summary

VEC's position is that we need to meet our renewable energy goals in a way that is cost effective, equitable, and sustainable. We believe larger projects should be market competitive so that we do not pay more than we need to, and so that we do not shift costs to those who are least able to afford it.